CLAIMS

What is claimed is:

1.   A system for transmitting a sequence of data blocks from a transmitter to a receiver, the system comprising:

        a plurality of transmit processors for transmitting the sequence of data blocks, each data block including an identification of the transmit processor that transmits the data block;

        a scheduler for assigning each data block to the transmit processor that is released most recently from transmission;

        a plurality of receive processors for receiving the transmitted data blocks; and

        a reordering processor for reordering the received data blocks into the sequence;

        whereby an error in transmission of a data block is detected using said identification.

2.   The system of claim 1 wherein a receive processor transmits an acknowledgement when a data block is received without error, thereby releasing the corresponding transmit processor for transmission of the next data block.

3.   The system of claim 1 wherein a sequence number of the data block is transmitted to the receive processor.

4.   The system of claim 3 wherein said error is detected when a sequence number is missing.

5.   The system of claim 1 wherein said identification is a tag attached to the data block.

6.   The system of claim 1 wherein said identification is transmitted separately from the data block.

7.   A method for transmitting a sequence of data blocks from a transmitter to a receiver, the method comprising the steps of:

assigning a data block to a transmit processor that is released most recently from transmission;

transmitting the data block by the assigned transmit processor with an identification of the transmit processor that transmits the data block;

receiving the transmitted data block by a receive processor;

reordering the received data blocks into the sequence; and,

detecting an error in transmission of a data block using said identification.

8.   The method of claim 7 further comprising the step of assigning a sequence number to each data block.

9.   The method of claim 8 wherein said error is detected when a sequence number is missing.

10.   The method of claim 7 further comprising the step of sending an acknowledgement to a transmit processor when the receive processor receives a data block without error, whereby the corresponding transmit processor is released for transmission of the next data block.

11.   The method of claim 7 wherein said identification is transmitted separately from said data block.

12.   The method of claim 7 wherein said identification is a tag attached to the data block.